

Patent claims

1. A fuel pump comprising an electromotive drive that has a commutator and carbon brushes which brush alternately against commutator segments as the commutator rotates, **characterized in that** the commutator segments (16, 18) contain graphite and at least one commutator segment (16, 18) contains graphite and an admixture of a material (30) that has a greater hardness than graphite.
2. The fuel pump as claimed in claim 1, **characterized in that** the admixture material (30) occurs in the form of individual particles (28) in the graphite.
3. The fuel pump as claimed in claim 2, **characterized in that** the particles (28) are uniformly dispersed in the respective commutator segments (16, 18).
4. The fuel pump as claimed in any one of the preceding claims, **characterized in that** the admixture material (30) is aluminum oxide.
5. The fuel pump as claimed in any one of the preceding claims, **characterized in that** the proportion of admixture material (30) in the respective commutator segments (16, 18) is approximately 0.2%.
6. The fuel pump as claimed in any one of the preceding claims, **characterized in that** the commutator segments (16, 18) are oriented radially in relation to the commutator axis and that the carbon brushes (24, 26) bear axially against the commutator segments (16, 18).
7. The fuel pump as claimed in any one of claims 1 to 5, **characterized in that** the commutator segments are oriented axially in relation to the commutator axis and that the

carbon brushes bear radially against the commutator segments.

8. The fuel pump as claimed in any one of the preceding claims, **characterized in that** all commutator segments (16, 18) coming into contact with the carbon brushes (24, 26) contain the admixture material (30).